## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

## State of the Water Management System

# **Severe Drought Edition**



Weekly Update

April 30 - May 4, 2007



#### **Mission Statement:**

To underscore our commitment to keep you informed, we will send this update weekly. We encourage you to share this water resources information with your constituents.

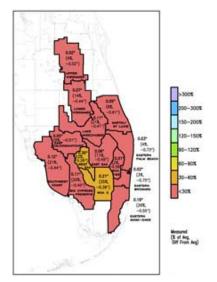


South Florida Water Management District www.sfwmd.gov

## **District News and Happenings**

- On Friday, April 27, four navigation locks on the north shore of Lake Okeechobee were closed to navigation due to safety hazards caused by low water levels in the lake. These navigation locks, which are operated by the District, will remain closed until water levels in Lake Okeechobee have returned to safe operating levels.
- On May 1, the District hosted a briefing for news media on the shores of Lake Okeechobee to illustrate the impacts of current drought conditions. District staff and Division of Emergency Management State Meteorologist Ben Nelson discussed weather, impacts of the drought and effects to Lake Okeechobee.
- The District's Governing Board will have a workshop in Okeechobee on Wednesday, May 9, where drought issues, specifically related to Lake Okeechobee and surrounding basins, the Herbert Hoover Dike and the Lake Okeechobee regulation schedule will be discussed. The following day, Thursday, May 10, the regular Governing Board meeting will be held in West Palm Beach, where District-wide drought issues will be presented.

## **System-Wide Overview**



Click map for larger image

### Rainfall overview:

- District-wide rainfall for the past week was 0.09 inches.
- The rainfall outlook for the next seven days is for near average rainfall.

## System-wide overview:

Even if Florida receives average rainfall this summer, that might not end the long-

term water shortage if the wet months are followed by unseasonably dry weather. In the last 18 months, South Florida has received just 49.31 inches of rain, almost 17 inches less than the 30-year average of expected rainfall. Florida last experienced a multi-year drought in 1999-2001. Lake Okeechobee water levels dropped to a record low of 8.97 feet in May 2001. May 1, the lake level was 9.66, less than one foot from that record low.

The current drought is hitting South Florida similarly to the 1999-2001 drought. During the last drought, rainfall in Central Florida was enough to carry South Florida through the lean times. Water flowing from the Kissimmee River Valley helped to recharge water supplies in Lake Okeechobee. With rainfall shortages in central Florida for much of 2006, there isn't enough water in the Kissimmee Valley to help alleviate drought here. The result is a strain on water supplies from surface sources like Lake Okeechobee, rivers and canals, and South Florida's shallow aquifer.

Lake Okeechobee is low enough that the U.S. Army Corps of Engineers hasn't ordered major water releases since January 2006. The most recent pulse environmental releases ran from only December 2006 to February 2007.

Some shower activity is expected each day this week and over the weekend.

## **U.S. Drought Monitor:**

The <u>Drought Monitor</u> focuses on broad-scale conditions and identifies general drought areas, labeling droughts by intensity. This week, areas of the District fall into four areas of intensity, ranging from abnormally dry to extreme drought.

#### Lake Okeechobee:

Lake Okeechobee continues to decline and is at 9.65 feet NGVD 29 (8.35 feet NAVD 88), 0.20 feet lower since this day last week and 0.77 feet lower than one month ago. Two colonies of wading birds were documented during the April surveys. The lower lake levels have exposed the sediment along the nearshore areas of the lake making it possible to evaluate where organic sediment (muck) has accumulated. The District is working in cooperation with Florida Fish and Wildlife Conservation Commission and Glades County to remove this organic muck sediment from areas near Fish Eating Bay, Harney Pond Canal, Eagle Bay, Bay Bottom and in the northwest marsh. As lake levels continue to decline, sampling programs are being scaled back or even suspended because sites are no longer accessible by boat or boat ramps are no longer usable for launching.

## **Upper Chain of Lakes/Kissimmee Basin:**

The upper Kissimmee Basin received 0.02 inches of rain over the last seven days, and the lower basin received 0.07 inches. Snail kites continue to nest on Lake Tohopekaliga and Lake Kissimmee. Small releases from Lake Tohopekaliga continue to allow a more gradual recession for snail kites. No other releases are being made. Concentration of dissolved oxygen in the Phase I restored river channel remains above thresholds of concern. During the last week, stage remained stable within the area of Phase I of Kissimmee River Restoration Project.

### St. Lucie and Caloosahatchee Estuaries:

In the St. Lucie Estuary, no releases occurred at S-80 over the past week. Average salinities at the Roosevelt Bridge exceed the upper limit of the preferred range and salinity conditions are fair at that site. Average salinities at the A1A Bridge are slightly above the preferred range and salinity conditions are good at that site. In the Caloosahatchee Estuary, no discharge occurred at S-79 over the past week. Salinity conditions are poor in the upper estuary. In the lower estuary and San Carlos Bay the high salinities are good for seagrass and fair for oysters.

## Water Conservation Areas (WCAs):

The WCA descending trend was normal for this time of year except in a few

places that reached as high as -0.81 feet per week. Good recession rates were found in the Loxahatchee National Wildlife Refuge, WCA-3B and the southern region of WCA-3A. These same regions currently also had good foraging depths for wading birds, except in the southern regions of WCA-3A, where depths remain over 1.0 feet. At the other extreme, WCA-2B and northern areas of WCA-3A water tables are now down to more than a foot below the peat surface, increasing the risks of peat fires. The South Florida wetland habitats are showing a high degree of resilience to the current drought. The marshes remain hydrated despite the low water in the surrounding canals and wading birds have shifted foraging and nesting locations.

## **Everglades National Park:**

The Park received between 0 - 0.26 inches of rain for the week. The Park wetlands experienced seasonal water level recession again last week, though these levels still remain considerably higher than they were before the rain event from three weeks ago.

Note: This rainfall information is based on rain gauges within the Park. The map above captures District rain gauge data only.

### Florida Bav:

Florida Bay salinity trends were again mixed for the week. Many areas saw declining concentrations early in the week, climbing by the latter part of the week.

## Area Water Restrictions:



Click map for larger image

#### **Everglades Agricultural Area**

Modified Phase Three or extreme water shortage conditions have been declared for Everglades Agricultural Area farmers who rely on Lake Okeechobee for irrigation water. This requires a 45 percent cutback in their weekly allocations.

## Lake Okeechobee Service Area

(Includes portions of Hendry, Glades, Lee, Okeechobee, Palm Beach, Martin counties) <u>Phase Two</u> restrictions remain in place for other Lake Okeechobee Service Area water users. This require a 30 percent reduction for agricultural and other District permitted users and limits lawn watering to no more than two days a week for residents and businesses using surface water sources.

## **Lower East Coast**

(Includes eastern Miami-Dade, Broward, Palm Beach and Monroe counties, as well as residents and business in Martin County served by the Tequesta Water

Utility) <u>Phase Two</u> restrictions require a 30 percent reduction for agricultural and other District permitted users and limits lawn watering to no more than two days a week for residents and businesses using surface water sources. These restrictions apply to all traditional surface and groundwater sources - including water from public utilities, private wells, lakes, canals and ponds.

## **Lower West Coast**

(Includes Hendry, Glades, Lee and Collier counties and a portion of Charlotte County) <u>Phase Two</u> restrictions require a 30 percent reduction for agricultural and other District permitted users and limits lawn watering to no more than two days a week for residents and businesses using surface water sources. These restrictions apply to all traditional surface and groundwater sources - including water from public utilities, private wells, lakes, canals and ponds.

#### **Upper East Coast**

(Includes Martin and St. Lucie counties) <u>Phase 1</u> or moderate restrictions are now in effect for residents and businesses in Martin and St. Lucie counties, except those as residents and business in Martin County served by the Tequesta Water Utility who are under Phase Two restrictions. Lawn watering is allowed up to three-days-a-week and, again, these restrictions apply to all traditional surface and groundwater sources.

Agricultural users in the Lake Istokpoga area and in St. Lucie and Martin counties continue to have limits on withdrawals from area canals.

## Did you know?

The South Florida Water Management District manages and protects the water resources of the region by balancing and improving water quality, flood control, natural systems and water supply. Want to hear more? It would be our pleasure to meet with your organization to give a presentation and answer your questions. If interested, please contact Niki Spencer at 800-432-2045 or 561-686-8800, ext. 6004

\* SFWMD water managers and the U.S. Army Corps of Engineers work together to manage Lake Okeechobee. Water releases from the lake are made in accordance with a federally authorized regulation schedule based on many factors such as time of year, current water conditions, predicted rainfall and lake level.